UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/656,564	09/07/2000	Majid Rabbani	81191PRC	2014

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EXAMINER
TILLERY, RASHAWN N

ART UNIT	PAPER NUMBER
2612	

DATE MAILED: 05/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
●	09/656,564	RABBANI ET AL.
Office Action Summary	Examiner	Art Unit
	Rashawn N Tillery	2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 September 2000</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-39</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-15, 20-31 and 36-39</u> is/are rejected.

7)☒ Claim(s) <u>16-19, 21, 23, 32-34, 37 and 39</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2-4</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Specification

The abstract of the disclosure is objected to because it includes legal phraseology such as "is disclosed". Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made

1.   Claims 1, 2, 5-13, 20, 22, 24, 25, 28, 29, 36 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsubaki et al (US6539169).

Regarding claim 1, Tsubaki discloses a method for selectively adjusting the resolution levels or the quality levels of digital images stored in a memory of a digital camera having a predetermined memory space, comprising the steps of:

capturing a first image and storing the captured first image at a specific resolution level or quality level (Tsubaki teaches selecting a standard resolution or a high resolution before photographing an image);

adjusting the resolution level or quality level of the stored first image based on

the available memory space in the digital camera memory so that a subsequent

captured image can be stored (Tsubaki teaches a re-record mode where a stored image

of one resolution is re-recorded a different resolution; Tsubaki also teaches adjusting

the resolution levels or quality levels when user specifies or automatically based on

printer specifications. It would have been obvious to one of ordinary skill in the art to

adjust level's based on available memory space since Tsubaki reveals in the

Background of the Invention that the number of photos recorded depends on the

capacity of the memory; see col. 1, line 15); and

capturing a subsequent image and storing the captured subsequent image with

the adjusted first image (see col. 5, line 1 to col. 6, line 43).

Regarding claim 2, Tsubaki teaches that images are recorded in a recording

medium at a predetermined resolution or compression rate upon photographing and

thus discloses the captured first image is compressed prior to storage.

Regarding claims 5 and 24, Tsubaki discloses a method for selectively adjusting

the resolution levels or the quality levels of digital images stored in a memory of a digital

camera having a predetermined memory space, comprising the steps of:

prior to image capture, selecting the resolution level or quality level of images

(Tsubaki teaches selecting a standard resolution or a high resolution before

photographing an image);

after capturing an image, adjusting the resolution level or quality level of one or

more stored images based on the available memory space in the digital camera

memory so that the captured image can be stored (Tsubaki teaches a re-record mode

where a stored image of one resolution is re-recorded a different resolution; Tsubaki

also teaches adjusting the resolution levels or quality levels when user specifies or

automatically based on printer specifications. It would have been obvious to one of

ordinary skill in the art to adjust level's based on available memory space since Tsubaki

reveals in the Background of the Invention that the number of photos recorded depends

on the capacity of the memory; see col. 1, line 15); and

storing the captured image with the adjusted first images (see col. 5, line 1 to col.

6, line 43).

Regarding claim 6, Tsubaki discloses the selecting step includes programming

the digital camera with a predetermined resolution level or quality level (see claim 1

above).

Regarding claim 7, Tsubaki discloses the selecting step includes a user

determining the resolution level of the quality level prior to image capture (see claim 1

above).

Regarding claim 8, Tsubaki discloses the user has available for selection a

plurality of resolution levels and quality levels (see col. 6, lines 39-43; Tsubaki teaches

the classification of a plurality of resolution and compression levels).

Regarding claim 9, Tsubaki discloses the captured image when stored has a

resolution level and a quality level selected by user (see col. 6, lines 34-43; Tsubaki

teaches storing images at a given resolution and compression rate and changing either

or both depending on available memory space).

Regarding claim 10, Tsubaki discloses the adjusting step includes changing the resolution level or quality level of all of the stored images (see col. 6, lines 25-29).

Regarding claim 11, Tsubaki inherently discloses a computer readable medium having computer executable instructions for performing the method of claim 5 since the device has various modes with predetermined functions.

Regarding claims 12 and 28, see claim 1 above. The examiner notes that by adjusting a resolution level, Tsubaki is inherently adjusting a file size since the amount of data is increased or reduced in accordance with available memory space.

Regarding claims 20 and 36, Tsubaki discloses a method for selectively adjusting the quality levels (compression rates) of digital images stored in a memory of a digital camera having a predetermined memory space in a range from a minimum acceptable quality level to the highest quality level (Tsubaki teaches that a resolution or compression rate is classified in a plurality of levels and that images are recorded in either a high resolution or a standard resolution; the examiner notes that Tsubaki's standard level could be interpreted as a minimum acceptable quality level since it is the lowest level available), comprising the steps of:

storing images at the highest quality level until the available memory space does not permit the storage of a subsequent image at the highest quality level (Tsubaki is capable of storing images in a high resolution or compression rate; thus, in the case where user determines there is no more available memory space, the images can be re-recorded in a lower resolution or compression rate or subsequent images can be recorded at a lower resolution or compression rate);

reducing the quality of level of at least one of the stored images so that the available memory space is capable of storing a subsequent captured image at the minimum acceptable quality level (see examiner's notes above; the examiner notes that Tsubaki is capable of reducing the quality level of images before or after a subsequent image is captured); and

capturing a subsequent image and storing the captured subsequent image at a quality level within the quality level range (see examiner's notes above).

Regarding claims 22 and 38, see claim 20 above.

2.   Claims 3, 14, 26 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsubaki in view of Lynch et al (US6381280).

Regarding claims 3 and 30, Tsubaki teaches that images are recorded in a recording medium at a predetermined resolution or compression rate upon photographing. Tsubaki does not expressly disclose that the first image is compressed using embedded quantization. Lynch reveals that it is well known in the art to utilize a compression method which has embedded quantization (see col. 1, lines 28-41). It would have been obvious to one of ordinary skill in the art to implement Lynch's teachings since Tsubaki does not specify a particular compression technique used.

Regarding claims 14 and 26, see claim 3 above.

4.   Claims 4, 15, 27 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsubaki in view of Lynch in further view of Swidler et al (US6393578).

Regarding claims 4 and 31, Tsubaki teaches that images are recorded in a recording medium at a predetermined resolution or compression rate upon photographing. Tsubaki does not expressly disclose that the first image is compressed in accordance with JPEG2000. Swidler reveals that it is well known in the art to utilize a compression method for still images in accordance with JPEG2000 (see col. 2, lines 1-10). It would have been obvious to one of ordinary skill in the art to implement Swidler's teachings since Swidler reveals that the JPEG2000 standard is a more efficient encoding technology for still images.

Regarding claims 15 and 27, see claim 3 above.

Allowable Subject Matter

Claims 16-19, 21, 23, 23-35, 37 and 39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 16 and 32, the prior art does not teach or fairly suggest a method for selectively adjusting the file size of digital images stored in a memory comprising the steps of capturing a first image, adjusting the file size of the image and capturing a subsequent image, wherein

the compressed first image is organized into a plurality of layers and wherein one or more of such quality layers can be deleted to reduce the file size of the compressed first image and thereby increase the available digital camera memory space.

Regarding claims 18 and 34, the prior art does not teach or fairly suggest a method for selectively adjusting the file size of digital images stored in a memory comprising the steps of capturing a first image, adjusting the file size of the image and capturing a subsequent image, wherein

the compressed first image is organized into a plurality of resolution layers and quality layers and wherein one or more of such resolution layers and quality layers can be deleted to reduce the file size of the compressed first image and thereby increase the available digital camera memory space.

Regarding claims 21 and 37, the prior art does not teach or fairly suggest a method for selectively adjusting the quality level of digital images stored in a memory comprising the steps of storing images at the highest quality, reducing the quality level of at least one image and capturing a subsequent image, wherein

a user selects the minimum acceptable quality level for each image to be stored, and wherein the reducing step includes first reducing the quality levels of the stored images having the highest differential between the user selected minimum acceptable quality level and the stored quality level.

Regarding claims 23 and 39, the prior art does not teach or fairly suggest a method for selectively adjusting the quality level of digital images stored in a memory comprising the steps of storing images at the highest quality, reducing the quality level of at least one image and capturing a subsequent image, including the step of

indicating to a camera user that a subsequent image cannot be stored unless the minimum acceptable quality level is reduced for one or more stored images.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Parulski et al teach a color camera with user selectable image record size. Sasaki et al teach a still camera with selection of recording modes. Aruga et al teach a digital camera and external storage device for switching image resolution modes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rashawn N Tillery whose telephone number is 703-305-0627. The examiner can normally be reached on 9AM-6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 703-305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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SUPERVISORY PATENT EXAMINER
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